

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:)	
Wayne H. Hanson et al.)	Group Art Unit: 3636
)	
Serial No.: 10/697,363)	Examiner: J. Edell
)	
Filed: October 30, 2003)	Confirmation No.: 7882
)	
For: DYNAMIC SEATING SYSTEM)	Attorney Docket: 1-24778
FOR PERSONAL MOBILITY)	
VEHICLE)	

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AMENDED APPELLANTS' BRIEF UNDER 37 C.F.R. § 41.37(d)

Honorable Sir:

This Appeal is taken from the Examiner's Final Rejection of Claims 3, 4, 6, 14, 15, 20-25 and 27 in the above-identified application. The Notice of Appeal was timely filed on July 25, 2008. The Appeal Brief is hereby resubmitted in response to a Notification of Non-Compliant Appeal Brief dated August 5, 2008. The non-compliant Appeal Brief was filed on July 25, 2008 together with the \$510.00 fee pursuant to 37 C.F.R. 41.20(b)(1). Please charge any additional fees and credit any over payments in connection with the filing of this notice to Deposit Account No. 13-0005.

Respectfully submitted,

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I. Real Party in Interest

The above-identified patent application is owned by Assignor, Sunrise Medical HHG Inc., a corporation organized and existing by virtue of the laws of the State of California, having its principal place of business in Longmont, Colorado.

II. Related Appeals and Interferences

There are no other appeals or interferences that are known to Appellants, Appellants' representative, or assignee which will directly affect, be directly affected by, or have a bearing on the Board's decision in this appeal.

III. Status of Claims

Claims 3, 4, 6, 14, 15, 20-25 and 27 stand rejected and are appealed. Claims 1, 2, 5, 7-13, 16-19 and 26 are cancelled.

IV. Status of Amendments

There have been no amendments to the application after the Final Office Action dated May 1, 2008.

V. Summary of Claimed Subject Matter

A. The invention is a seating system comprising a sliding mechanism configured to mount a seat tray for forward and rearward sliding movement in a *single plane* with respect to a base in a low friction manner. A pivot point for a seat back is positioned at the *anatomical hip pivot point* of the user of the seating system and a pivot point for a leg support positioned at the *anatomical knee pivot point* of the user.

As claimed in independent claim 20 and disclosed in the specification from line 24 on page 3 to line 5 on page 10, and shown in Figures 1-10, the seating system 30 comprises:

a base 12 mounted for movement on wheels 14, 16;

a seat tray 34 positioned in a seating shell base 32 that is provided with a pivot post 96 and the base 12 has a tilt-in-space block 100 with a guide slot 108 configured to receive a guide pin 98;

a sliding mechanism 37 configured to mount the seat tray 34 for forward and rearward sliding movement in a *single plane* with respect to the base 12 in a low friction manner;

a seat back 56 pivotally mounted relative to the seat tray 34 at a seat back pivot point 62 that is positioned to be at the *anatomical hip pivot point* of the user of the seating system 30; and

a leg support 22 pivotally mounted with respect to the seat tray 34 and depending from the seat tray 34, the leg support 22 being mounted in a manner that allows the leg support 22 to pivot as the user experiences extension tone, with the leg support pivot point being positioned to be at the *anatomical knee pivot point* of the user of the seating system 30;

wherein the sliding mechanism 37 is configured with sufficiently low friction to enable the user of the seating system 30 to experience extension tone with little resulting resistance to forward movement of the seat tray 34 and little resulting resistance to pivoting of the leg support 22; and

wherein the seating system 30 is configured for forward movement of the seat tray 34 and pivoting of the leg support 22 caused by tone extension of the user.

Another embodiment of the invention is directed toward a seating system comprising a sliding mechanism configured to mount a seat tray for forward and rearward sliding movement in a *single plane* with respect to a base in a low friction manner. A pivot point for a seat back is positioned at the *anatomical hip pivot point* of the user of the seating system and a pivot point for a leg support positioned at the *anatomical knee pivot point* of the user. A *biasing element* is connected relative to the base and the seat tray for biasing the seat tray rearward relative to the base. The biasing element is configured to store energy and have a damping effect upon application of force by the user to move the seat tray forward. The biasing element is also configured to release energy when a user relaxes to automatically move the seat tray rearward.

As claimed in independent claim 24 and disclosed in the specification from line 24 on page 3 to line 5 on page 11, and shown in Figures 1-10, the seating system 30 comprises:

- a base 12 mounted for movement on wheels 14, 16;

- a seat tray 34 positioned in a seating shell base 32 that is provided with a pivot post 96 and the base 12 has a tilt-in-space block 100 with a guide slot 108 configured to receive a guide pin 98;

- a sliding mechanism 37 configured to mount the seat tray 34 for forward and rearward sliding movement in a *single plane* with respect to the base 12 in a low friction manner;

- a seat back 56 pivotally mounted relative to the seat tray 34 at a seat back pivot point 62 that is positioned to be at the *anatomical hip pivot point* of the user of the seating system 30;

- a leg support 22 pivotally mounted with respect to the seat tray 34 and depending from the seat tray 34, the leg support 22 being mounted in a manner that allows the leg support 22 to pivot as the user experiences extension tone, with the leg support pivot point being positioned to be at the *anatomical knee pivot point* of the user of the seating system 30; and

- a *biasing element* 120 connected relative to the base 32 and the seat tray 34 for biasing the seat tray 34 rearward relative to the base 32, the biasing element 120 configured to store energy and have a damping effect upon application of force by the user to move the seat tray 34 forward, and the biasing element 120 configured to release energy when a user relaxes to automatically move the seat tray 34 rearward;

- wherein the sliding mechanism 37 is configured with sufficiently low friction to enable the user of the seating system 30 to experience extension tone with little resulting resistance to forward movement of the seat tray 34 and little resulting resistance to pivoting of the leg support 22; and

- wherein the seating system 30 is configured for forward movement of the seat tray 34 and pivoting of the leg support 22 caused by tone extension of the user.

B. Additional novel elements of the seating system:

In certain embodiments, as disclosed in the specification, at least in lines 11-13 on page 9, and in Figure 10, the sliding mechanism 37 limits the sliding movement of a seat tray 34 to a *substantially horizontal movement*.

In certain embodiments, as disclosed in the specification, at least in line 8 on page 6 to line 5 on page 9, and in Figures 1-3, the seat back 56 is connected to a back support member 72 so that downward movement of the back support member 72 in a substantially vertical direction with respect to the base 32 causes the seat back 56 to pivot at a seat tray 34, thereby reclining the seat back 56, and thereby *causing the seat tray 34 to slide forward with respect to the base 32*.

VI. Grounds of Rejection to be Reviewed on Appeal

Grounds of rejection are set forth in the Office Action dated May 1, 2008, as:

A. Whether claims 3, 4, 20-23 and 27 are patentable under 35 U.S.C. §103(a), over U.S. Patent No. 6,488,332, to Markwald, in view of U.S. Patent No. 6,086,086, to Hanson et al.

B. Whether claims 6, 14, 15, 24 and 25 are patentable under 35 U.S.C. §103(a), over Markwald in view of U.S. Patent No. 327,775, to Dodge.

VII. Arguments

A. Rejection of claims 3, 4, 20-23 and 27 under 35 U.S.C. §103

Claims 3, 4, 20-23 and 27 are patentable under 35 U.S.C. §103(a), over U.S. Patent No. 6,488,332, to Markwald, in view of U.S. Patent No. 6,086,086, to Hanson et al.

To establish prima facie obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art. *In re Royka*, 490 F.2d 981, 180 USPQ 580 (CCPA 1974). That is to say, the references, when combined, must teach or suggest all the claim limitations. *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991). A corollary of this rule is that absence from the reference any claimed element negates anticipation. *Kloster Speedsteel AB v. Crucible Inc.*, 793 F.2d 1565, 230 USPQ 81, 84 (Fed. Cir. 1986). Almost is not enough. A prior art

disclosure that almost meets the standard of anticipation does not anticipate. *Connell v. Sears, Roebuck & Co.*, 722 F.2d 1542, 220 USPQ 193, 198 (Fed. Cir. 1983). The claimed invention must be considered as a whole and the references must be considered as a whole. *Hodosh v. Block Drug Co., Inc.*, 786 F.2d 1136, 1143 n.5, 229 USPQ 182 187 n.5 (Fed. Cir. 1986). Although this conclusion is one of law, such determinations are made against a background of several factual inquiries, one of which is the scope and content of the prior art. *Graham v. John Deere Co.*, 383 U.S. 1, 17, 148 USPQ 459, 467 (1966).

1. Claims 20 and 22

Claims 20 and 22 recite a seating system comprising a sliding mechanism configured to mount the seat tray for forward and rearward sliding movement in a *single plane* with respect to the base in a low friction manner, a seat back pivotally mounted relative to the seat tray at a seat back pivot point that is positioned to be at the *anatomical hip pivot point* of the user of the seating system; and a leg support having a pivot point that is positioned to be at the *anatomical knee pivot point* of the user of the seating system.

Markwald fails to teach or suggest a sliding mechanism as recited in claims 20 and 22. Markwald teaches a guide (17), which may qualify as a sliding mechanism, and a seat surface (7) but Markwald does not teach or suggest that the guide is configured to mount the seat surface for forward and rearward sliding movement in a *single plane*, as recited in claims 20 and 22. Markwald also fails to teach or suggest pivot points as recited in claims 20 and 22. Markwald appears to teach seat back and knee pivot points (9) and (11) but Markwald does not teach or suggest that the pivot points are positioned at the *anatomical hip and knee pivot points* of the user, as recited in claims 20 and 22.

Hansen fails to cure the deficiencies in Markwald. Hansen teaches a seat base (82) but does not teach or suggest that *the seat base is configured for forward and rearward sliding movement*. Moreover, Hansen teaches pivot posts (62) but does not teach or suggest that the pivot points are positioned at the *anatomical hip and knee pivot points* of the user, as recited in claims 20 and 22.

Responsive to Appellants' foregoing argument in connection with the sliding mechanism, the Examiner states that the recitation of a guide that is configured to mount the seat surface for forward and rearward sliding movement in a *single plane* is a recitation of the intended use of the claimed invention, which must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. See page 5 of the Office Action dated May 1, 2008. The Examiner argues that if the prior art structure is capable of performing the intended use, it meets the limitations of the claim.

First, the recitation of a sliding mechanism that is configured to mount the seat surface for forward and rearward sliding movement in a *single plane*, as recited in claims 20 and 22, is not a recitation of intended use. Instead, it's a functional limitation that defines the slide mechanism in relation to other elements of the claims. There is nothing inherently wrong with defining some part of an invention in functional terms. Functional language does not, in and of itself, render a claim improper. *In re Swinehart*, 439 F.2d 210, 169 USPQ 226 (CCPA 1971).

Next, even if the functional limitation could be construed as a recitation of intended use, the claims are patentably distinguished because there are structural differences between the claimed invention and the prior art. The claimed invention comprises a seat tray that is mounted for movement in a *single plane*. The manner in which the seat tray is mounted establishes an interconnection between claim elements. The interconnection between claim elements is a structural difference. Neither Markwald nor Hanson teaches a seat tray that is mounted for movement in a *single plane*. Due to this structural difference, the claims are patentably distinguished from the prior art.

Lastly, the prior art structure is not capable of performing the intended use. Neither Markwald nor Hanson teach or suggest the claimed sliding mechanism. As mentioned above, the seat base (82) taught by Hansen is not *configured for sliding movement*. Though the seat surface (7) of Markwald is mounted for movement, it is not mounted for movement in a *single plane*, as recited in the claims. The Examiner argues that it is mounted for movement in a *single plane* when the seat tray is only

moved slightly. However, this is not true. Contrary to the Examiner's argument, if Markwald's seat tray is moved slightly, then the seat tray moves angularly a corresponding amount, even if the seat tray moves slightly. This is dictated by the geometry of the Markwald structure. Hence, the seat surface (7) of Markwald is not mounted for forward and rearward sliding movement in a *single plane*. Consequently, it is not capable of performing the intended use. It follows that Markwald does not meet the limitations of the claims.

Additionally, regarding the Examiner's argument that the prior art structure is capable of performing the intended use, the fact that a certain result or characteristic may occur in the prior art is not sufficient to establish the inherency of that result or characteristic. *In re Rijckaert*, 9 F.3d 1531, 1534, 28 USPQ2d 1955, 1957 (Fed. Cir. 1993). Inherency does not embrace possibilities or probabilities. *Scaltech Inc. v. Retec/Tetra L.L.C.*, 156 F.3d 1193, 51 USPQ2d 1055, 1059 (Fed. Cir. 1999). Inherent anticipation requires that the missing descriptive material be necessarily present in the prior art. *Trintec Indus. Inc. v. Top-U.S.A. Corp.*, 296 F.3d 778, 63 USPQ2d 1597, 1099 (Fed. Cir. 2002). There is no presumption that, if a prior art reference teaches the same structure as claimed by a patent, that resulting property is inherently present. *Crown Oper. Int'l Corp. v. Solutia Inc.*, 289 F.3d 1367, 62 USPQ2d 1917, 1922-23 (Fed. Cir. 2002).

There is nothing in Markwald that would indicate that the result or characteristic of the claimed invention (e.g., that the seat surface (7) of Markwald is mounted for movement in a *single plane*) is inherent in Markwald. Moreover, there is nothing in Markwald that would indicate that this missing descriptive material is necessarily present in Markwald. Further, there is no presumption that, if Markwald teaches the same structure as claimed, that resulting property is inherently present.

Lastly, to establish inherency, extrinsic evidence "must make clear that the missing descriptive material is so recognized by persons of ordinary skill." *In re Robertson*, 169 F.3d 743, 745, 49 USPQ2d 1949, 1950-51 (Fed. Cir. 2002). The Examiner is not relying on extrinsic evidence. Instead, he has drawing a conclusion from Markwald without any teaching or suggestion from Markwald, and without any

extrinsic evidence for doing so. From this, the Examiner forms an unsupported conclusion regarding the movement of Markwald's seat surface (7).

Regarding pivot points positioned at the *anatomical hip and knee pivot points* of the user, the Examiner states that Hanson specifically teaches the desirability of placing pivot points at the anatomical correct hip and knee locations, referring to columns 8, lines 30-42 of the Hanson patent. However, Hanson does not teach or suggest pivot points positioned at the *anatomical hip and knee pivot points* of the user. Instead, Hanson specifically teaches pivot points positioned at "correct" hip and knee locations. In this regard, Hanson does not teach or suggest the claimed invention. As a consequence, the claimed invention is different from Markwald and Hanson.

The Examiner argues that the functional language in the claims is exceedingly broad as the location corresponding to a user's hip and knee varies depending on the size of the user. The Examiner states that if Appellants argue that such functional language results in a structural difference from the seating system of Markwald and Hanson, a rejection under 35 U.S.C. § 112, second paragraph, may be appropriate for the claim being indefinite. See pages 5 and 6 of the Office Action dated May 1, 2008.

First, the functional language is only as broad as is permitted by the references relied upon by the Examiner in making his rejection of the claims. Appellants are entitled to such broad language.

Second, the primary purpose of the requirement of definiteness of claim language is to ensure that the scope of the claims is clear so the public is informed of the boundaries of what constitutes infringement of the patent. Appellants may use functional language, alternative expressions, negative limitations, or any style of expression or format of claim which makes clear the boundaries of the subject matter for which protection is sought. As noted by the court in *In re Swinehart*, 439 F.2d 210, 160 USPQ 226 (CCPA 1971), a claim may not be rejected solely because of the type of language used to define the subject matter for which patent protection is sought.

In a claim that was directed to a kit of component parts capable of being assembled, the Court held that limitations such as "members adapted to be positioned"

and "portions . . . being resiliently dilatable whereby said housing may be slidably positioned" serve to precisely define present structural attributes of interrelated component parts of the claimed assembly. *In re Venezia*, 530 F.2d 956, 189 USPQ 149 (CCPA 1976). In like manner, sliding mechanism and pivot points are defined in such a way as to precisely define present structural attributes of interrelated component parts of the seating system.

In the absence of some teaching or suggestion of a sliding mechanism and pivot points as set forth in claims 20 and 22, the Examiner has not established a prima facie case of obviousness. The rejection of the claims is improper and should be withdrawn.

2. Claims 3, 4, 21, 23 and 27

If an independent claim is allowable, then any claim depending therefrom is allowable. *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988).

Claims 3, 4, 21, 23 and 27 depend from claims 20 and 22 and should be allowable for at least the same reasons as claims 20 and 22, as set forth above.

In addition, the sliding mechanism recited in claims 3 and 23 limits the sliding movement of a seat tray to a *substantially horizontal movement*.

Neither Markwald nor Hansen teach or suggest a seat tray *limited to substantially horizontal movement*. Markwald teaches a seat surface (7), which may qualify as a seat tray, but Markwald does not teach or suggest that the seat surface is *limited to substantially horizontal movement*, as recited in the claims. In fact, Markwald's seat surface has vertical and horizontal components of movement. As a consequence, it is not *limited to substantially horizontal movement*. Hansen is entirely devoid of any teaching or suggestion of a *seat base is configured for sliding movement*, horizontal or otherwise.

In response to the foregoing argument, the Examiner points out that substantially horizontal movement is broader than horizontal movement. The Examiner reasons that a seat tray that has some movement beyond horizontal movement would meet this limitation. The Examiner indicates that because the seat tray of Markwald, alone or in combination, has movement primarily in the horizontal direction, Markwald in view of Hanson teach all the limitations of claims 3 and 23.

However, contrary to the Examiner's interpretation, Markwald's seat tray does not move primarily in the horizontal direction. As clearly shown by a comparison of Figs. 1 and 2, Markwald's seat tray has more movement in a vertical direction than in a horizontal direction (compare the horizontal movement of the guide with the vertical movement of the seat tray).

In the absence of some teaching or suggestion of a seat surface that is *limited to substantially horizontal movement* as set forth in claims 3 and 23, the Examiner has not established a prima facie case of obviousness. Consequently, the rejection of the claims is improper and should be withdrawn.

B. Rejection of claims 6, 14, 15, 24 and 25 under 35 U.S.C. §103

Claims 6, 14, 15, 24 and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Markwald in view Hanson, as applied to claims 3, 4, 20-23 and 27 above, and further in view of U.S. Patent No. 327,775 to Dodge.

Claims 6, 14, 15, 24 and 25 depend from claims 20 and 22 and should be allowable over Markwald and Hanson for at least the same reasons as claims 20 and 22, as set forth above. Dodge fails to cure the deficiencies in Markwald and Hanson. Consequently, the claims should be allowable over Markwald in view of Hanson and Dodge for at least the same reasons as claims 20 and 22, as set forth above.

In addition, claims 6, 14, 15 and 24 require a seat back that is connected to a back support member, wherein downward movement of the back support member in a substantially vertical direction with respect to a base causes the seat back to pivot at a seat tray, thereby reclining the seat back, and thereby *causing the seat tray to slide forward with respect to the base*.

Markwald fails to teach or suggest a seat back that moves downward to cause the seat back to pivot at a seat tray and thereby recline, which in turn *causes the seat tray to slide forward with respect to a base*, as admitted by the Examiner (see page 4 of the Final Office Action dated May 1, 2008). The Examiner interprets a shaft (H) taught by Dodge to be a seat back support member. However, Dodge fails to teach or suggest that *downward movement of the shaft can cause a seat tray to slide forward*

with respect to a base. To this end, the references, when combined, do not teach or suggest all the claim limitations of these claims.

In response to Appellants' argument, the Examiner argues that Appellants' argument primarily rests on the deficiencies of the individual references, and that one cannot show non-obviousness by attacking the references individually where the rejections are based on combinations of references. The Examiner indicates that Markwald teaches the interplaying relationship of the seat back and seat tray wherein the seat tray slides forward due to corresponding movement of the seat back. However, this is not true. Markwald actually teaches a seat back that moves forward due to corresponding movement of the seat tray sliding. Even if Hanson separately taught the desirability of the seat back moving downward, Hanson doesn't correct the deficiencies in Markwald. Dodge does no more than Hanson in that Dodge only teaches a seat back that is subject to downward movement. Dodge does not teach or suggest that *downward movement of the shaft can cause a seat tray to slide forward with respect to a base.* Hence, Appellants are not attacking the references individually. Instead, Appellants are simply pointing out that the references, individually or in combination, fail to teach or suggest the invention as set forth in the claims.

In the absence of some teaching or suggestion of a seat back that moves downward to cause the seat back to pivot at a seat tray and thereby recline, which in turn *causes the seat tray to slide forward with respect to a base*, the Examiner has not established a prima facie case of obviousness. Consequently, the rejection of claims 6, 14, 15 and 24 is improper and should be withdrawn.

Conclusion

In view of the above remarks, Appellants have shown that the claims are in proper form for allowance, and the invention, as defined in the claims herein, is neither taught nor suggested by the references of record. In view of the foregoing arguments, the rejections of claims 3, 4, 6, 14, 15, 20-25 and 27 are in error, and

should be reversed. Appellants accordingly respectfully request that the Board of Patent Appeals and Interferences reverse the Examiner as to all rejections.

VIII. Claims Appendix

1-2. (Canceled)

3. The seating system of claim 20, wherein the sliding mechanism limits the sliding movement of the seat tray to a substantially horizontal movement.

4. The seating system of claim 21, wherein the biasing element stores energy and has a damping effect upon application of force by a user to move the seat tray forward and releases energy when a user relaxes to automatically move the seat tray rearward.

5. (Cancelled)

6. The seating system of claim 21, wherein the seat back is connected to a back support member, and wherein downward movement of the back support member in a substantially vertical direction with respect to the base causes the seat back to pivot at the seat tray, thereby reclining the seat back, and thereby causing the seat tray to slide forward with respect to the base.

7-13. (Cancelled)

14. The seating system of claim 20, wherein the seat back is connected to a back support member, and wherein downward movement of the back support member in a substantially vertical direction with respect to the base causes the seat back to pivot at the seat tray, thereby reclining the seat back, and thereby causing the seat tray to slide forward with respect to the base.

15. The seating system of claim 14, further comprising a locking mechanism supported with respect to the base for locking the back support member in a fixed position with respect to the base.

16-19. (Cancelled)

20. A seating system for a personal mobility vehicle, the seating system being capable of accommodating extension tone of a seating system user, the seating system comprising:

a base mounted for movement on wheels;

a seat tray positioned in a seating shell base that is provided with a pivot post and the base has a tilt-in-space block with a guide slot configured to receive a guide pin;

a sliding mechanism configured to mount the seat tray for forward and rearward sliding movement in a single plane with respect to the base in a low friction manner;

a seat back pivotally mounted relative to the seat tray at a seat back pivot point that is positioned to be at the anatomical hip pivot point of the user of the seating system; and

a leg support pivotally mounted with respect to the seat tray and depending from the seat tray, the leg support being mounted in a manner that allows the leg support to pivot as the user experiences extension tone, with the leg support pivot point being positioned to be at the anatomical knee pivot point of the user of the seating system;

wherein the sliding mechanism is configured with sufficiently low friction to enable the user of the seating system to experience extension tone with little resulting resistance to forward movement of the seat tray and little resulting resistance to pivoting of the leg support; and

wherein the seating system is configured for forward movement of the seat tray and pivoting of the leg support caused by tone extension of the user.

21. The seating system of claim 20 in which a biasing element is connected relative to the base and the seat tray for biasing the seat tray rearward relative to the base.

22. A seating system for a personal mobility vehicle, the seating system being capable of accommodating extension tone of a seating system user, the seating system comprising:

- a base mounted for movement on wheels;

- a seat tray positioned in a seating shell base that is provided with a pivot post and the base has a tilt-in-space block with a guide slot configured to receive a guide pin;

- a sliding mechanism configured to mount the seat tray for forward and rearward sliding movement in a single plane with respect to the base in a low friction manner;

- a seat back pivotally mounted relative to the seat tray at a seat back pivot point that is positioned to be at the anatomical hip pivot point of the user of the seating system;

- a leg support pivotally mounted with respect to the seat tray and depending from the seat tray, the leg support being mounted in a manner that allows the leg support to pivot as the user experiences extension tone, with the leg support pivot point being positioned to be at the anatomical knee pivot point of the user of the seating system; and

- a biasing element connected relative to the base and the seat tray for biasing the seat tray rearward relative to the base, the biasing element configured to store energy and have a damping effect upon application of force by the user to move the seat tray forward, and the biasing element configured to release energy when a user relaxes to automatically move the seat tray rearward;

wherein the sliding mechanism is configured with sufficiently low friction to enable the user of the seating system to experience extension tone with little resulting resistance to forward movement of the seat tray and little resulting resistance to pivoting of the leg support; and

wherein the seating system is configured for forward movement of the seat tray and pivoting of the leg support caused by tone extension of the user.

23. The seating system of claim 22, wherein the sliding mechanism limits the sliding movement of the seat tray to a substantially horizontal movement.

24. The seating system of claim 22, wherein the seat back is connected to a back support member, and wherein downward movement of the back support member in a substantially vertical direction with respect to the base causes the seat back to pivot at the seat tray, thereby reclining the seat back, and thereby causing the seat tray to slide forward with respect to the base.

25. The seating system of claim 22 further comprising a locking mechanism supported with respect to the base for locking the seat back in a fixed position with respect to the base.

26. (Cancelled)

27. The seating system of claim 20 wherein the guide slot is substantially T-shaped with a generally straight upper portion and an arced lower portion, at an uppermost portion of the guide slot is a pivot post cradle where the pivot post is seated.

IX. Evidence Appendix

None

X. Related Decisions Appendix

None